

Operational Description

The EUT is an Eee PC with wireless card and 3G module (Gobi2000™) installed. User can connect to network by wireless card or 3G modules, but not simultaneously, which means that if wireless card works, then 3G module will not work. User can change to each of them by software.

1) The wireless card has 11 channels. The modulations of device include BPSK, CCK, QPSK 16QAM and 64QAM, transmitting speed supports as follows:

1, 2, 5.5, 11Mbps for 802.11b;

6, 9, 12, 18, 24, 36, 48, 54Mbps for 802.11g;

6.5, 13, 19.5, 26, 39, 52, 58.5, 65 for 802.11n (20MHz Bandwidth),

13.5, 27, 40.5, 54, 81, 108, 121.5, 135Mbps for 802.11n (40MHz Bandwidth)

The technology of this device used are DSSS and OFDM, it supports a 1*T_x and 1*R_x antenna delivery. The antenna provides diversity function to improve the receiving function.

This Eee PC, compliant with IEEE 802.11b, IEEE 802.11g and IEEE 802.11n, is a high-efficiency Wireless LAN adapter. It allows your computer to connect to a wireless network and to share resources, such as files or printers without being bound to the network wires. Operation in 2.4GHz Direct Sequence Spread Spectrum (DSSS) radio transmission, the Eee PC Wired Equivalent Protection (WEP) algorithm is used. In addition, its standard compliance ensures that it can communicate with any IEEE 802.11b, IEEE 802.11g and IEEE 802.11n network.

2) The 3G module Gobi2000™ is the second-generation PCI Express™ Mini Card that enables notebook computer wireless data connectivity. This datacard solution delivers WWAN connectivity for the CDMA2000® 1X, 1x EV-DO, UMTS (HSDPA), and GSM/GPRS/EDGE protocols, plus GPS position location, in a single package. The complete Gobi2000 solution includes all hardware and software necessary for embedded wireless connectivity in notebook PCs.

Gobi2000™ supported frequency range

Mode	Band	UL Frequency (MHz)	DL Frequency (MHz)
WCDMA Release 99 HSDPA Release 5	1	1920-1980	2110-2170
	2	1850-1910	1930-1990
	5	824-849	869-894
	6	830-840	875-885
	8	880-915	925-960
GSM GPRS EGPRS	850	824-849	869-894
	900	880-915	925-960
	1800	1710-1785	1805-1875
	1900	824-849	869-894
CDMA2000 1X CDMA2000 1x EV-DO ---Rev: 0 ---Rev: A	BC0	1850-1910	1930-1990
	BC1	1850-1910	1930-1990
GPS Position Location	GPS L1	---	1574.42-1576.42

Key connectivity support includes:

- (a) USB 2.0 high-speed
- (b) Universal integrated circuit card (UICC) for RUIM/USIM
- (c) Primary and secondary antenna connectors
- (d) Status LED driver output
- (e) DC power supply input and enable/disable control

Gobi2000 operating modes and throughput rates¹

Operating Mode	Data throughput rate	
	Forward Link	Reverse Link
CDMA 1x RTT	153 kbps	153 kbps
CDMA 1x EV-DO	3.1 Mbps	1.8 Mbps
WCDMA R99	384 kbps	384 kbps
WCDMA - HSDPA	7.2 Mbps	---
GSM	14.4 kbps	14.4 kbps
GPRS	85.6 kbps	42.8 kbps
EDGE	236.8 kbps	118.4 kbps

1. GPS position location can be enabled simultaneously with any airlink operating mode, or Rx diversity can be enabled during any CDMA or WCDMA operating mode.
2. Target peak data rates are listed; actual throughput performance varies depending on operating and RF environment conditions.